



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

pu

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,500	12/19/2001	Gary W. Grube	276440-24	2490

7590 10/24/2003

O'Melveny & Myers, LLP
400 S. Hope Street
Los Angeles, CA 90071

EXAMINER

EVERHART, CARIDAD

ART UNIT PAPER NUMBER

2825

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/028,500	GRUBE ET AL.	
	Examiner	Art Unit	<i>AW</i>
	Caridad M. Everhart	2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 21-30 is/are allowed.
- 6) ☒ Claim(s) 11-16, 31, 33 and 37-41 is/are rejected.
- 7) ☒ Claim(s) 32, 34-36 and 42-49 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Applicant's arguments with respect to claims 11-20,31-49 have been considered but are moot in view of the new ground(s) of rejection.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 33, 37, 38, 39, 40, 41, and 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Burgess, et al. ("Burgess")(US 6,584,678B2).

Burgess discloses the steps of providing a sacrificial substrate(col. 5, lines 25-26). The transfer substrate is interpreted to be a sacrificial substrate. An interconnect element is formed on the sacrificial substrate(col. 5, lines 40-44). The orientation of the conductive structures on the sacrificial substrate is different from that of the conductive structures on the substrate to which it is transferred, because the transfer is carried out by heat and pressure(col. 5, lines 57-60), so that the orientation of the structures will be inverted when transferred. It would be expected that the orientation would be with the tips inverted but parallel. The conductors are released from the sacrificial substrate, which is involved in transferring a structure. The transfer substrate is coated with a

release layer(col. 4, lines 21-27). The conductors are attached to the final substrate by the heat and pressure process(col. 5, lines 55-61). That the conductor can be applied by offset coating is interpreted to teach that the conductor can fill patterns in the coating of the transfer substrate(col. 5, lines 35-40).

Claims 11, 12, 13, 14, 15, 16, and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Khoury (US 6,436,802B1).

Khoury discloses the steps of depositing a sacrificial layer(col. 18, lines 44-46), patterning the sacrificial layer(col. 18, lines 45-52, 58-60), depositing contact material(col. 19, lines 5-13), and releasing the contact structure material from the substrate(col. 19, lines 25-30), as Khoury teaches that the contactor is separated from the substrate(col. 19, lines 25-28). Among the materials for the conductor are aluminum and copper(col. A9, lines 5-10). The method of deposition may be electroplating (col. 19, lines 6-7). Khoury also teaches the formation of a seed layer in the electroplating method(col. 11, lines 46-54). Fig. 19-G shows that the sacrificial layer is formed on the seed layer described in col. 18, lines 33-43). The materials may be nickel-cobalt alloy (col. 8, lines 29-40).

Allowable Subject Matter

Claims 1-10,21-30 are allowed.

Claims 17-20,32,34-36,42-49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caridad M. Everhart whose telephone number is 703-308-3455. The examiner can normally be reached on Monday through Fridays 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 703-308-1323. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Application/Control Number: 10/028,500
Art Unit: 2825

Page 5

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

C. Everhart
CARIDAD EVERHART
PRIMARY EXAMINER

C. Everhart
October 18, 2003